



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Constantin Bulucea and Rebecca Rossen

Assignee: Siliconix incorporated

Title: Trench DMOS Power Transistor With Field-Shaping Body Profile and Three-Dimensional Geometry

Serial No.: 08/851,608

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Examiner: S. Crane

Group Art Unit: 2811

Atty. Docket No.: M-799-4C US

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Paxton
Fees Paid
#40/m
San Jose, California
23 December 2002

BOX CPA
COMMISSIONER FOR PATENTS
Washington, D. C. 20231

PRELIMINARY AMENDMENT

Sir:

Please amend the above patent application as follows:

IN THE CLAIMS

Amend Claims 17 - 23, 25, 26, 29 - 42, 46 - 48, and 52 - 65 to read as follows with unchanged Claims 27, 28, 44, and 49 - 51 being repeated below for the Examiner's convenience:

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--17. (Four times amended) A trench DMOS transistor cell comprising:
a substrate of a first conductivity type, said substrate having a surface;
an epitaxial layer of said first conductivity type formed on said surface of said substrate, said epitaxial layer having a top surface and a bottom surface, said epitaxial layer having a substantially uniform initial dopant concentration at formation;
a body region of a second conductivity type opposite to said first conductivity type formed in said epitaxial layer, said body region extending, as measured from said top surface of said epitaxial layer, to a first depth d_{max} at a first location and to a depth d at a second